

ST. AUGUSTINE GRASS DECLINE

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St. Augustine decline (SAD) was first reported from the Lower Rio Grande Valley of Texas in 1966 and by 1969 had been observed in 13 Texas counties (3). It has subsequently been found in Mexico, Louisiana (2), and most recently in Arkansas (1). It is not known to be present in Florida. Florida Statute Chapter 5B-36 prohibits the entry of St. Augustine sod from infested areas except under special permit. This is enforced mainly by Agricultural Inspection Stations.

The pathogen, which is a strain of Panicum mosaic virus (SAD-PMV), causes significant economic losses in St. Augustine grass [*Stenotaphrum secundatum* (Walt.) Kuntze]. Curiously, the type strain (PMV) causes only mild mosaic symptoms in many grasses but does not occur naturally in economic crops (4).

SYMPTOMS. The symptoms first appear as a mild chlorotic mottle or mosaic pattern on leaf blades of St. Augustine grass. The following season, the mottling becomes more severe until the lawn shows a general chlorosis (Fig. 1). Stolon growth is retarded, and eventually (usually the third year) areas of dead and dying turf will result. The early symptoms may be confused with nutrient deficiencies (zinc or iron); however, the virus causes a mosaic or a stippling effect, whereas the deficiency symptoms appear as continuous stripes.



Fig. 1. Progressive symptoms of SAD-PMV on St. Augustine grass showing characteristic chlorotic mottle. (Photograph courtesy of Dr. R. W. Toler, Texas A & M University.)

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CONTROL. If the disease does appear in Florida, it probably will have been introduced in infected turf from other states. Thus, individuals should avoid purchasing turf from other than reputable Florida producers. Once SAD is present, it can be spread by mechanical means (i.e., lawn mower) (4). No insect vectors have been found. If the disease becomes established, control will depend upon the use of virus-resistant cultivars, such as 'Floratam'.

SURVEY AND DETECTION. Look for abnormal yellowing in lawns of St. Augustine grass. Individual leaves will show a chlorotic mottle or mosaic pattern. The most sensitive indicator plant for laboratory assay is German foxtail millet, Setaria italica (L.) Beauv.

LITERATURE CITED.

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